

Time Line – Elk River Spill

Freedom Industries, Inc.

Occurred on January 9, 2014 - crude 4-methylcyclohexanemethanol (MCHM) was released from a Freedom Industries facility into the Elk River, a tributary of the Kanawha River, in Charleston in the U.S. state of West Virginia. Crude MCHM is a chemical foam used to wash coal and remove impurities that contribute to pollution during combustion

How much of this chemical entered the Elk River? When did the spill start?

Timeline:

7 a.m. - 8 a.m.: People in area start complaining about the smell.

10:30 a.m.: This is when Freedom Industries President Gary Southern says his employees discover the leak. Apparently, no one from the company notifies state or local officials, or calls the spill hotline, as required.

11:05 a.m.: After receiving odor complaints from residents, DEP officials show up at the site. Freedom Industries had not called to report the leak to them.

12:05 p.m.: Freedom Industries reports spill to hotline.

As for when the leak started: it's not known yet exactly when. But since Crude MCHM has such a low odor threshold, state environmental officials think residents started smelling it very soon after it started leaking into the Elk River

State environmental officials estimate 7,500 gallons of Crude MCHM leaked into the Elk River.

The spill began on Thursday, January 9, 2014 when up to 7,500 US gallons (28,000 litres; 6,200 imperial gallons) of crude MCHM leaked from a one-inch hole in the bottom of a stainless steel storage tank capable of holding 40,000 US gallons (150,000 litres; 33,000 imperial gallons) and its containment area at Freedom Industries' Charleston facility.

The MCHM leaked from the containment area and into the ground, through which it traveled into the Elk River.^[17] The chemical spill occurred 1 mile (1.6 km) upstream from West Virginia American Water's drinking water intake and treatment and distribution center.^{[13][16][17][18]} The Elk River measured approximately 7 feet (2.1 m) in depth at the time of the spill.^[7]

The spill was noticed around mid morning on January 9 by several Charleston area residents when they began to notice a "sweet smell"(like Licorice) in the air.

On January 9, West Virginia Governor Earl Ray Tomblin declared a state of emergency, and activated the West Virginia National Guard.^[13]

West Virginia American Water was aware of the chemical spill by noon, but assumed that

they could filter it. By 4 p.m., when its carbon filtration system could no longer handle the large amount of contamination in the water and the chemical began flowing through the carbon filter, they decided to report the problem. This they did at 5:09 p.m.^{[7][15]} West Virginia American Water concluded that its tap water was unsafe for use and instructed its customers to cease using its tap water at 5:45 p.m.^{[13][16]} Freedom Industries failed to contact West Virginia American Water following the spill, and West Virginia American Water was instead notified by the DEP.^[7]

Freedom Industries refused initial media inquiries, following the spill.^[1] The company's president, Gary Southern gave a ten minute news conference the next evening, January 10.^[1]

On January 10, FEMA had sent 75 trucks, each carrying about 4,900 US gallons (19,000 litres; 4,100 imperial gallons) of water.^[16] By the morning of January 11, the United States Department of Homeland Security had sent 16 tractor trailers of bottled water to 16 distribution centers around the Charleston metropolitan area.^[16] At a news conference on January 11, FEMA officials announced that they had already brought approximately 370,000 US gallons (1,400,000 litres; 310,000 imperial gallons) of potable water into affected areas.

The West Virginia Department of Health and Human Resources stated that 122 people had sought treatment by January 11 for symptoms including nausea and vomiting. Of those 122 people, four people had been admitted to the Charleston Area Medical Center and one at another area hospital for observation with symptoms of nausea.

On January 11, CSB officials announced they were to arrive in Charleston on January 13 to begin their investigation.^[22] The Occupational Safety and Health Administration also opened its own investigation of the incident.^[14]

On January 12, the number of patients treated at hospitals for their symptoms from chemical exposure grew to about 169.

January 13 - up to 300,000 residents within nine counties in the Charleston, West Virginia metropolitan area were without access to potable water. The areas affected were portions of Boone, Clay, Jackson, Kanawha, Lincoln, Logan, Putnam, and Roane counties and the Culloden area of Cabell County.

By the evening of January 13, 15 percent of West Virginia American Water's customers were permitted to begin using the drinking water.^[24]

On January 13, a Kanawha County Circuit Court judge issued a temporary restraining order to preserve evidence at the Freedom Industries' Charleston facility. The order also prohibited the company from modifying in any manner "any structure, tank, equipment, material or condition of" its facility, except as necessary to stop and clean up the chemical spill.^[26]

January 14, the total hospitalized reached 14, although none were in serious condition.

The "do-not-use" advisory for drinking water from West Virginia American Water's system began to be gradually lifted by West Virginia state officials on January 13 based upon "priority zones."

January 14, the company revealed that the tank, which leaked about 7,500 gallons into the ground by the Elk River, had also contained a mixture of glycol ethers known as PPH, with a similar function as MCHM.

The company filed for bankruptcy eight days after the spill – January 17
Freedom Industries' Charleston facility was located along the Elk River, approximately 1.5 miles (2.4 km) upstream from the river's confluence with the Kanawha River,

Federal and West Virginia state regulators had not inspected the Freedom Industries chemical storage site in Charleston since 1991 when the facility was owned by Pennzoil, according to the West Virginia Department of Environmental Protection (DEP)

The facility stored chemicals in 14 storage tanks with a capacity of 4 million gallons.^[5] The facility stored chemicals, but did not conduct coal cleaning. Eastman Chemical Company was the manufacturer of the crude MCHM.

On January 21, Freedom Industries notified West Virginia Department of Environmental Protection that a second chemical, polyglycol ethers (PPH), was in the leaking tank with the MCHM. The department said that the failure to report accurately the type of materials and the quantities is a violation of state law.^[27]